WHAT IS CLAIMED IS:

1. A control unit for electric power steering, comprising:

motor driving means for energizing an electric motor to operate a steering mechanism secondarily;

motor current detecting means for detecting a current flowing in said electric motor;

control means for implementing control so that a current detection output obtained by said motor current detecting means reaches a target current value to said motor driving means determined on the basis of a steering torque in said steering mechanism;

temperature detecting means for detecting a temperature of said motor current detecting means; and

correction means for correcting an output of said motor current detecting means on the basis of an output of said temperature detecting means.

2. The unit according to claim 1, further comprising characteristic data storing means for storing output characteristic data on said motor current detecting means with respect to the output of said temperature detecting means, said correction means correcting the output of said motor current detecting means on the basis of the output of said temperature detecting means and said output characteristic data on said motor current detecting means stored in said characteristic data storing means.

3. The unit according to claim 2, wherein said characteristic data storing means stores characteristic data obtained on the basis of the outputs of said motor current detecting means with respect to the outputs of said temperature detecting means under two or more temperature conditions.

4. The unit according to claim 2, wherein said characteristic data storing means is constructed with a data-rewritable non-volatile memory.

5. The unit according to claim 1, wherein said motor current detecting means and said temperature detecting means are arranged on the same semiconductor.

6. The unit according to claim 1, wherein said temperature detecting means is placed in the vicinity of said motor current detecting means.

7. The unit according to claim 5, wherein, on said semiconductor, said temperature detecting means is located in the close vicinity of said motor current detecting means.